



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
16.03.2011 Bulletin 2011/11

(51) Int Cl.:
G05B 19/05 (2006.01)

(43) Date of publication A2:
15.09.2010 Bulletin 2010/37

(21) Application number: **10154186.0**

(22) Date of filing: **22.02.2010**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR
Designated Extension States:
AL BA RS

(72) Inventors:
• **Yoshida, Katsufumi**
Kyoto-shi, Kyoto 600-8530 (JP)
• **Nakamura, Toshiyuki**
Kyoto-shi, Kyoto 600-8530 (JP)

(30) Priority: **12.03.2009 JP 2009059324**
19.01.2010 JP 2010009338

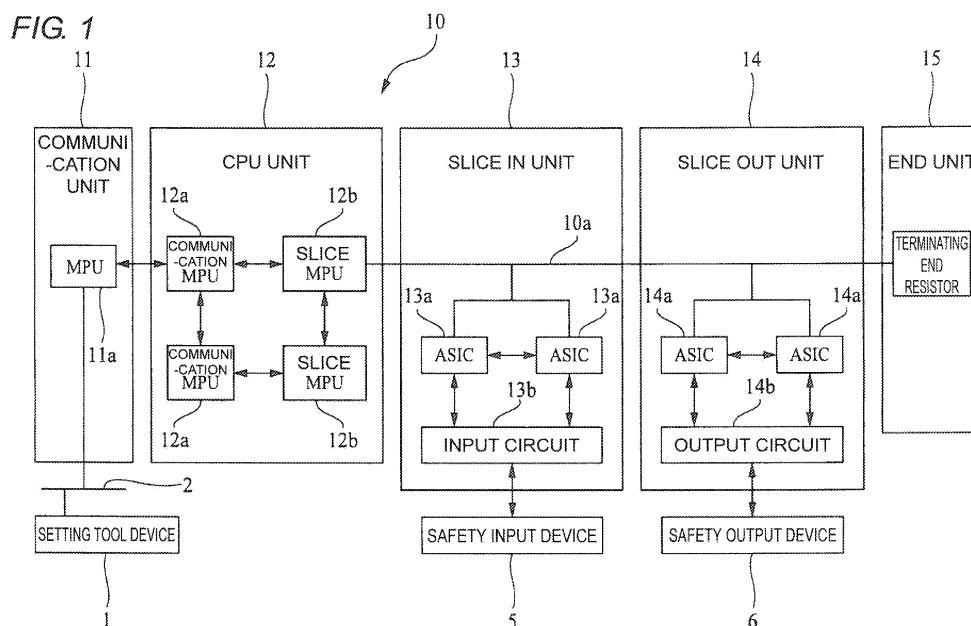
(74) Representative: **Wilhelms · Kilian & Partner**
Patentanwälte
Eduard-Schmid-Straße 2
81541 München (DE)

(71) Applicant: **Omron Corporation**
Kyoto-shi, Kyoto 600-8530 (JP)

(54) **I/O unit and industrial controller**

(57) This invention enables setting of a diagnosis algorithm of a safety device to be easily carried out. A slice I/O unit (13, 14) stores a plurality of diagnosis algorithm (20) each corresponding to a different safety device (5, 6) in an ASIC (13a, 14a), and stores specifying information for specifying a diagnosis algorithm (20) to use of the plurality of diagnosis algorithms (20) in a register (21)

of the ASIC. The slice I/O unit (13, 14) performs diagnosis of a connected safety device using the diagnosis algorithm (20) specified by the specifying information stored in the register (21) of the plurality of diagnosis algorithms (20). The diagnosis algorithm to use can be selected by selecting a number, and the like, which is preferable as a setting process at a setting tool device can be facilitated and a human error does not occur.





EUROPEAN SEARCH REPORT

Application Number
EP 10 15 4186

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 1 717 654 A2 (OMRON TATEISI ELECTRONICS CO [JP]) 2 November 2006 (2006-11-02) * paragraph [0037] - paragraph [0050]; figures 1-3 *	1-7	INV. G05B19/05
X	EP 1 703 348 A2 (OMRON TATEISI ELECTRONICS CO [JP]) 20 September 2006 (2006-09-20) * paragraph [0051] - paragraph [0059] * * paragraph [0064] - paragraph [0076]; figures 1-4 *	1-7	
A	EP 0 292 914 A1 (OMRON TATEISI ELECTRONICS CO [JP]) 30 November 1988 (1988-11-30) * column 5, line 55 - column 10, line 26; figures 1,2 *	1-7	
A,D	JP 2005 243008 A (OMRON TATEISI ELECTRONICS CO) 8 September 2005 (2005-09-08) * abstract *	1-7	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			G05B
Place of search		Date of completion of the search	Examiner
The Hague		31 January 2011	Cîrîc, George
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

1
EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 15 4186

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

31-01-2011

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1717654	A2	02-11-2006	JP 3978617 B2	19-09-2007
			JP 2006323831 A	30-11-2006
			US 2006271833 A1	30-11-2006

EP 1703348	A2	20-09-2006	EP 2228698 A1	15-09-2010
			US 2006253626 A1	09-11-2006

EP 0292914	A1	30-11-1988	DE 3883075 D1	16-09-1993
			DE 3883075 T2	07-04-1994
			US 4942513 A	17-07-1990

JP 2005243008	A	08-09-2005	NONE	
